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66358 7590 03/06/2007 VARIAN MEDICAL SYSTEMS TECHNOLOGIES, INC. C/O WORKMAN NYDEGGER 60 E. SOUTH TEMPLE SUITE 1000 SALT LAKE CITY, UT 84111			EXAMINER AUSTIN, AARON	
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/668,537
Filing Date: September 23, 2003
Appellant(s): WARBURTON, DON

Peter F. Malen Jr.
For Appellant

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GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 18, 2006 appealing from the
Office action mailed March 13, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is deficient. 37 CFR 41.37(c)(1)(v) requires the summary of claimed subject matter to include: (1) a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number, and to the drawing, if any, by reference characters and (2) for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function as permitted by 35 U.S.C. 112, sixth paragraph, must be identified and the structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by reference characters. The brief is deficient because, with respect to claim 11, the claimed coating is an inorganically bonded ceramic, not an inorganically bonded composite.

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(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,400,882	McManus	9-1968
5,725,808	Tormey et al.	3-1998
6,329,098	Bliesner	12-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-36 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed emissive coating which substantially comprises an inorganically bonded ceramic was not described sufficiently in the specification to enable one skilled in the art to make and use the invention.

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The only example of the coating material is referred to by trade names in paragraphs [0054]-[0055], namely the trademark or trade name "HPC/H02" and "HPC/H05", which were not defined in the specification. Accordingly, identification by scientific or other explanatory language is necessary in order to enable one skilled in the art to make and/or use the invention.

If proper identification of the product sold under a trademark, or a product referred to only by a name used in trade, is omitted from the specification and such identification is deemed necessary under the principles set forth above, the examiner should hold the disclosure insufficient and reject on the ground of insufficient disclosure any claims based on the identification of the product merely by trademark or by the name used in trade. See MPEP 608.01 (v) [R-2].

Claims 1-2, 4-15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McManus (US 3,400,882).

With respect to claims 1-2 and 11-15, McManus discloses a vacuum chamber wherein a coating of ceramic material covers the interior of the ion pump chamber. The walls of the pump may be metallic material such as stainless steel. The ceramic coating may be any suitable ceramic for high vacuum environments, is not porous, and has a glazed surface exposed to the interior of the vacuum chamber (col. 3, lines 60-75).

The preamble recitations of "use in an x-ray device" in claim 1, "use with a rotating anode" in claim 14 and "use with a stationary anode" in claim 15 place no

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positive limitations on the claimed component, instead merely indicating the intended use of the component.

With respect to claims 4 and 17, the ceramic coating is considered to be a dielectric material.

With respect to claims 5-6, these two claims are product-by-process claims. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113). “[E]ven though product – by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 227 USPQ 964, 966.

With respect to claims 7-10 and 18-19, as stated above, the specification does not provide sufficient description of the inorganically bonded ceramic for the claimed emissive coating. It appears that any type of inorganically ceramic whether the emissivity is high or low can function as the claimed emissive coating. The ceramic coating disclosed by McManus is considered to be the same as the claimed emissive coating and have the same properties such as those recited in claims 7-10 and 18-19. Or in the alternative, the claimed parameters/properties may be expressed differently and thus may be distinct from that disclosed, it is incumbent upon appellantss to establish that such difference is unobvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to employ the particular

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parameters as claimed, since it is well-established that merely selecting proportions and ranges is not patentable absent a showing of criticality. In re Becket, 33 USPQ 33, and In re Russell, 169 USPQ 426.

Claims 1-2 and 4-10 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bliesner (6,329,098).

With respect to claims 1-2, Bliesner discloses a component comprising stainless steel coated with an electrically insulating ceramic (col. 3, lines 1-30).

The preamble recitation of "use in an x-ray device " in claim 1 places no positive limitations on the claimed component, it merely indicates the intended use of the component.

With respect to claim 4, the ceramic coating disclosed by Bliesner is a dielectric material.

It is noted that claims 5-6 are product-by-process claims. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113). "[E]ven though product – by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966.

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With respect to claims 7-10, as stated above, the specification does not provide sufficient description of the inorganically bonded ceramic for the claimed emissive coating. It appears that any type of inorganically ceramic whether the emissivity is high or low can function as the claimed emissive coating. The ceramic coating disclosed by Bliesner is considered to be the same as the claimed emissive coating and have the same properties such as those recited in claims 7-10. Or in the alternative, the claimed parameters/properties may be expressed differently and thus may be distinct from that disclosed, it is incumbent upon appellantss to establish that such difference is unobvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to employ the particular parameters as claimed, since it is well-established that merely selecting proportions and ranges is not patentable absent a showing of criticality. In re Becket, 33 USPQ 33, and In re Russell, 169 USPQ 426.

Claims 3, 16 and 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over McManus, as applied to claims 1-2, 4-15 and 17-19 above, and further in view of Tormey et al. (US 5,725,808).

As stated above, McManus discloses the component comprising the same or similar structure as claimed.

McManus does not disclose the ceramic coating comprising oxide filler.

Tormey teaches oxide filler for a ceramic which is used to coat a metal substrate can reduce shrinkage and have a low firing temperature (col. 2, lines 45-60). Therefore, it would have been obvious to one of ordinary skill in the art to add oxide filler to the

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ceramic coating of McManus in order to improve the properties of the ceramic coating such as reduced shrinkage and have a low firing temperature.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bliesner, as applied to claims 1-2 above, and further in view of Tormey et al. (US 5,725,808).

As stated above, Bliesner discloses the component comprising the same or similar structure as claimed.

Bliesner does not disclose the ceramic coating comprising oxide filler.

Tormey teaches oxide filler for a ceramic which is used to coat a metal substrate can reduce shrinkage and have a low firing temperature (col. 2, lines 45-60). Therefore, it would have been obvious to one of ordinary skill in the art to add oxide filler to the ceramic coating of Bliesner in order to improve the properties of the ceramic coating such as reduced shrinkage and have a low firing temperature.

(10) Response to Argument

Issue 1:

Regarding the rejection under 35 USC 112, first Paragraph, appellant has presented several arguments.

(1) Appellant first argues that the Examiner has failed to properly state and apply the established legal standard.

In support of this argument, appellant argues ample disclosure is provided in the application to enable one of skill in the art to make and use the invention. However, the

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only examples in the specification of the claimed coating materials are noted using the trademarks/trade names HIPERCOAT®, "HPC/H02" and "HPC/H05", for which the generic terminology was not provided. Without knowledge of the compositions represented by the trademarks/trade names, one of ordinary skill in the art is not provided with sufficient information to practice the invention as trademarks/trade names may represent any number of individual products over time having any number of physical properties.

Further, appellant argues the examination has not taken into account the numerous factors to be considered when determining whether a disclosure is sufficiently enabling of the claimed invention. In particular, it is argued that the prior rejections do not address the matter of undue experimentation fully and instead focused on one factor alone and therefore the rejection neglected the required analysis. However, the numerous factors associated with undue experimentation provided by in re Wands have been taken into account and in weighing the factors the specification was found to be insufficient, particularly with respect to the amount of direction provided by the inventor (Factor (F) as described in MPEP 2164.01(a)). As trademarks/trade names are not representative of a particular composition as they may be applied to any number of individual products over time having any number of physical properties, one of ordinary skill in the art is not provided with sufficient information to determine the working composition of the claimed emissive coating.

Still further, appellant argues the substance of the arguments set forth in appellant's reply of February 21, 2006 at pages 10-11 was not addressed in the prior

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Office Action and instead provided only conclusory statements in support of the rejection. In review, the substance of the argument in the referenced reply was the same as addressed directly above; namely, that the prior rejections do not address the matter of undue experimentation fully and instead focused on one factor alone and therefore the rejection neglected the required analysis. This argument is answered as set forth directly above.

The emissive coating is an essential element in the claimed component. The only examples of the coating material is referred to trade names on paragraphs [0054]-[0055], were the trademarks/trade names HIPERCOAT®, "HPC/H02" and "HPC/H05". Accordingly, identification of the product under the trademarks or trade names is necessary to enable one skilled in the art to make and use the invention.

(2) Appellant's next argument states that the Examiner has failed to establish that the scientific and other explanatory language in the specification is inadequate to enable one of ordinary skill in the art to make and use the invention without undue experimentation.

In support of this argument, appellant points to the reply of February 21, 2006 at pages 8-9 and the specification at pages 8 and 17 as providing ample scientific and explanatory language to one of ordinary skill in the art to identify the product associated with the trademarks/trade names HIPERCOAT®, "HPC/H02" and "HPC/H05". However, the cited language provides properties of the material but is insufficient in identifying the actual material itself. As noted above, without knowledge of the compositions represented by the trademarks/trade names, one of ordinary skill in the art

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is not provided with sufficient information to practice the invention as trademarks/trade names may represent any number of individual products over time having any number of physical properties. Therefore the rejection is maintained.

(3) Appellant's final argument with respect to this issue is that the Examiner has failed to establish that any pending claim is based on identification of a product merely by trademark or trade name.

In support of this argument, appellant argues the rejected claims are not based on a product merely identified by trademark or trade name and thus the reliance on MPEP 608.01 (v) [R-2] is misplaced. However, the argument is directed toward a rejection under the Second paragraph rather than the present rejection under the First paragraph of 35 USC 112 as set forth below:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Thus a rejection under the First paragraph looks for support in the specification for the claimed invention such that one of ordinary skill in the art is enabled for carrying out the invention upon reading the application.

In the present case, the rejection states that the claims are not enabled by the specification due to the use of trademarks/trade names to represent and enable the claimed coating material without clearly identifying the material itself. MPEP 608.01 (v) [R-2] supports this analysis by stating a disclosure relying only on trademarks/trade names is insufficient. Therefore, if the disclosure is deemed insufficient, the claims relying on the disclosure are not enabled. Thus the claimed emissive coating is not

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enabled as the specification does not provide one of ordinary skill in the art sufficient knowledge to identify the composition of the emissive coating sufficiently to practice the invention.

In further support of the rejection, it is recognized that trademarks and trade names are merely terms used to identify the manufacturer or distributor of a product (see the definitions provided by OneLook.com for example). These marketplace designations are not permanent and may be transferred freely from one product to another by the owner of the trademarks/trade names or to a new owner through assignment. As noted above, without knowledge of the compositions represented by the trademarks/trade names, one of ordinary skill in the art is not provided with sufficient information to practice the invention as trademarks/trade names may represent any number of individual products over time having any number of physical properties. As the appellant has not provided a recognized chemical formula or nomenclature to understand the composition of the trademarks/trade names used, it is the Examiner's position that the claims are not enabled.

Issue 2:

Appellant's argument states the Examiner has failed to establish that McManus discloses the identical invention in as complete detail as is contained in the claims.

In support of this argument, appellant argues McManus fails to disclose an "inorganically bonded ceramic" as claimed. However, as stated in the prior Office action, McManus discloses the use of a ceramic coating. It is well known in the art that

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ceramics comprise inorganic materials. In support of this observation, the Examiner pointed to the definition of the term "ceramic" in Hawley's Condensed Chemical Dictionary, 13th Edition, p 231, as "a product, in which silicon and its oxide and complex compound known as silicates occupy a predominant position." Since ceramics predominantly comprise inorganic materials, ceramics are therefore expected to predominantly include inorganic bonding. Accordingly, the Examiner maintains that the ceramic coatings disclosed in the prior art are considered to include inorganically bonded ceramics.

It should be noted that the claims do not limit the inorganically bonded ceramic to be any specific type of ceramics, accordingly, any type of ceramics, which comprise inorganic compounds can be used as the emissive coating.

Appellant has countered the arguments set forth by the Examiner by stating that the Examiner has extrapolated from the above stated definition of "ceramic" that all silicon and silicon oxides are inorganic, thus not allowing for the known existence of organic silicates. However, this argument goes further than that stated by the Examiner. The pertinent claim language is "an inorganically bonded ceramic" thus requiring a ceramic having at least one inorganic bond. As noted above, since ceramics predominantly comprise inorganic materials, ceramics are therefore expected to predominantly include inorganic bonding. Therefore, the ceramic coatings disclosed in the prior art are considered to include inorganically bonded ceramics within the meaning of the claims.

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Issue 3:

Appellant's argument states the Examiner has failed to establish that Bliesner discloses the identical invention in as complete detail as is contained in the claims.

In support of this argument, appellant argues Bliesner fails to disclose an "inorganically bonded ceramic" as claimed. However, as stated in the prior Office action, Bliesner discloses the use of a ceramic coating. It is well known in the art that ceramics comprise inorganic materials. In support of this observation, the Examiner pointed to the definition of the term "ceramic" in Hawley's Condensed Chemical Dictionary, 13th Edition, p 231, as "a product, in which silicon and its oxide and complex compound known as silicates occupy a predominant position." Since ceramics predominantly comprise inorganic materials, ceramics are therefore expected to predominantly include inorganic bonding. Accordingly, the Examiner maintains that the ceramic coatings disclosed in the prior art are considered to include inorganically bonded ceramics.

It should be noted that the claims do not limit the inorganically bonded ceramic to be any specific type of ceramics, accordingly, any type of ceramics, which comprise inorganic compounds can be used as the emissive coating.

Appellant has countered the arguments set forth by the Examiner by stating that the Examiner has extrapolated from the above stated definition of "ceramic" that all silicon and silicon oxides are inorganic, thus not allowing for the known existence of organic silicates. However, this argument goes further than that stated by the Examiner. The pertinent claim language is "an inorganically bonded ceramic" thus

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requiring a ceramic having at least one inorganic bond. As noted above, since ceramics predominantly comprise inorganic materials, ceramics are therefore expected to predominantly include inorganic bonding. Therefore, the ceramic coatings disclosed in the prior art are considered to include inorganically bonded ceramics within the meaning of the claims.

Issue 4:

Appellant's argument states the Examiner has failed to establish a prima facie case of obviousness with respect to claims 1-2, 4-15, and 17-19 based upon McManus.

In support of this argument appellant restates the arguments presented with respect to Issue 2 above. The response with respect to Issue 2 applies here as well.

Further, appellant argues the Examiner has failed to state the obviousness combination or modification believed by the Examiner to constitute, much less establish the existence of a suggestion or motivation to make such a combination. However, the rejection was made as a 102/103 rejection with respect to inherency. Where appellant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. "There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102." *In re Best*, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977). This same rationale should also apply to product, apparatus, and process claims

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claimed in terms of function, property or characteristic. Therefore, a 35 U.S.C. 102/103 rejection is appropriate for these types of claims as well as for composition claims. See MPEP 2112, Section III.

Issue 5:

Appellant's argument states the Examiner has failed to establish a prima facie case of obviousness with respect to claims 1-2 and 4-10 based upon Bliesner.

In support of this argument appellant restates the arguments presented with respect to Issue 3 above. The response with respect to Issue 3 applies here as well.

Further, appellant argues the Examiner has failed to state the obviousness combination or modification believed by the Examiner to constitute, much less establish the existence of a suggestion or motivation to make such a combination. However, the rejection was made as a 102/103 rejection with respect to inherency. Where appellant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. "There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102." *In re Best*, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977). This same rationale should also apply to product, apparatus, and process claims claimed in terms of function, property or characteristic. Therefore, a 35 U.S.C. 102/103

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rejection is appropriate for these types of claims as well as for composition claims. See MPEP 2112, Section III.

Issue 6:

Appellant's argument states the Examiner has failed to establish a prima facie case of obviousness with respect to claims 3, 16, and 20-26 based upon McManus and Tormey.

In support of this argument, appellant restates the arguments set forth above with respect to the argument that the references fail to teach the claimed "inorganically bonded ceramic". The response to this argument set forth above applies here as well.

Further, appellant argues the motivation for combining the references, namely improved properties of reduced shrinkage and low firing temperature, is nonexistent. However, as stated in the rejection, McManus does not disclose the ceramic coating comprising oxide filler. Tormey teaches oxide filler for a ceramic which is used to coat a metal substrate can reduce shrinkage and have a low firing temperature (col. 2, lines 45-60). Therefore, it would have been obvious to one of ordinary skill in the art to add oxide filler to the ceramic coating of McManus in order to improve the properties of the ceramic coating such as reduced shrinkage and have a low firing temperature.

Still further, appellant argues the Examiner has failed to establish that the McManus coatings suffer from such shortcomings as could, or would, be remedied by use of the disclosure of Tormey. However, a rejection under 35 USC 103 does not require teachings of shortcomings to establish obviousness. Instead, motivation for the

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combination is required and, in this case, is clearly provided by Tormey who teaches benefits attributable to the inclusion of oxide filler in a ceramic (col. 2, lines 45-60).

Moreover, appellant argues the Examiner has not established that there is a likelihood that the combination would prove successful. However, as like materials are used in a like manner, it is expected that the inclusion of oxide filler in a ceramic as taught by Tormey will produce identical properties to inclusion of oxide filler in the ceramic taught by McManus.

Issue 7:

Appellant's argument states the Examiner has failed to establish a prima facie case of obviousness with respect to claim 3 based upon Bliesner and Tormey.

In support of this argument, appellant restates the arguments set forth above with respect to the argument that the references fail to teach the claimed "inorganically bonded ceramic". The response to this argument set forth above applies here as well.

Further, appellant argues the motivation for combining the references, namely improved properties of reduced shrinkage and low firing temperature, is nonexistent. However, as stated in the rejection, Bliesner does not disclose the ceramic coating comprising oxide filler. Tormey teaches oxide filler for a ceramic which is used to coat a metal substrate can reduce shrinkage and have a low firing temperature (col. 2, lines 45-60). Therefore, it would have been obvious to one of ordinary skill in the art to add oxide filler to the ceramic coating of Bliesner in order to improve the properties of the ceramic coating such as reduced shrinkage and have a low firing temperature.

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Still further, appellant argues the Examiner has failed to establish that the Bliesner coatings suffer from such shortcomings as could, or would, be remedied by use of the disclosure of Tormey. However, a rejection under 35 USC 103 does not require teachings of shortcomings to establish obviousness. Instead, motivation for the combination is required and, in this case, is clearly provided by Tormey who teaches benefits attributable to the inclusion of oxide filler in a ceramic (col. 2, lines 45-60).

Moreover, appellant argues the Examiner has not established that there is a likelihood that the combination would prove successful. However, as like materials are used in a like manner, it is expected that the inclusion of oxide filler in a ceramic as taught by Tormey will produce identical properties to inclusion of oxide filler in the ceramic taught by Bliesner.

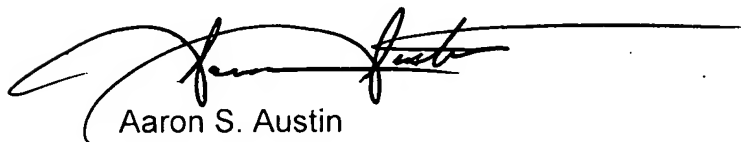
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,



Aaron S. Austin

Conferees:

Jennifer McNeil, SPE 1775



Carol Chaney, SPE 1773

